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Note on the phonetic transcriptions used here

I mostly use the "Slavistic phonetic notation" in sound change schemes, which is a common (maybe too common) convention in Slavic historical linguistics; main differences in comparison to the IPA: ogoneks indicate nasal vowels (but I've used an a-tilde for a nasalized open vowel to avoid confusion with the later ‹ą›, which at a certain point became a rounded back vowel), an acute accent following a consonant indicates palatalization, an acute accent over a consonant indicates that it is alveopalatal, acute accents above vowel letters indicate length; carons indicate palatoalveolar consonants; ř is a fricative trill as in modern Czech; **c**, **ʒ** and their modifications are respectively a voiceless and voiced coronal affricate ([t͡s] [d͡z] when without diacritics); **e** and **o** are not specifically close-mid, mid, or open-mid. For Common Slavic, I follow the general conventions with yer symbols imported from Cyrillic etc.

When I use IPA, it is placed between [square brackets] or /slashes/. Square brackets also surround distinctive features which function as the parameters of conditional sound changes. Sometimes I **embolden** Slavistic symbols when they are found inside a continous text.

Examples of whole Polish words are given in the modern orthography or as close as possible to it. A middle dot separates what could otherwise be interpreted as digraphs (this is just my convention).

I'd like to be more consistent but using the IPA all over would be at times difficult since I would have to specify some things on my own or choose symbols arbitrarily when it is too precise. It would also sever visual connection to the usual notation of CSl. or, if I were to change it, it would make it harder to look up the examples elsewhere. Using the Slavistic notation isn't always satisfactory, either, for it turns out to be too imprecise for certain purposes.

Bel. = Belarusian, CSl. = Common Slavic, Cz. = Czech, MPl. = Modern Polish, OCS = Old Church Slavonic, OPl. = Old Polish, Ru. = Russian, A = Accusative, D = Dative, G = Genitive, L = Locative, N = Nominative, sg = singular, pl = plural, T or C = consonant, V = vowel, masc. = masculine, fem. = feminine, neut. = neuter, MOA = manner of articulation, POA = place of articulation, dial. = dialectal, obs. = obsolete, reg. = regional, † = archaic, extinct

Sound changes from Common Slavic to Modern Polish

A. (MOSTLY) MAJOR PROCESSES ORDERED (ROUGHLY) CHRONOLOGICALLY

Dialectal period

- sk → šč / _[+front]; II regressive palatalization
  This development is seen in the archaic dative and locative of *Polska: Polszcze* (cf. *matka: matce*)
- x → š / _[+front], [+front]_; II regressive and the progressive palatalization
  This can be seen in words such as *wsze* (cf. Ru. все) and *musze*, D/L sg. of *mucha* (cf. Bel. мусе).
- Velars in the sequences *kv, *gv were not palatalized in the II regressive palatalization (*gwiazda, kwiat*, cf. OCS свѣзда, Russian цвет)
- Metathesis:
  TorT, TerT, TolT, TelT → TroT, TreT, Tlot, Tlet
  in certain cases (mostly after a CSl. palato-alveolar)
  TelT → TloT: *człon, żłób, szłom, żłopać*
  orT, olT → raT, laT / #_, acute accent on the syllable
  else:
  orT, olT → roT, roT / #_
- -ę → ě / in certain declensional endings (e.g. in the plural nominal forms such as *konie, dusze*, in pronouns: plural *je*, cf. OCS душѧ, конѧ, ѧ)
- ǫ~u oscillations: to this day Polish has many words with u instead of an expected ę or ą (and maybe vice versa, in some instances); it is often difficult to tell apart Czechisms, East Slavicisms and native nasality variation dating to CSl. E.g.: *smutny* (beside *smętny*), *łuk* (beside *łęk*), *rozpuknąć się* (beside *pękać*), *żubr* (OPl. *ząbr*), OPl. *wnęk* for MPl. *wnuk, tani* instead of *tuni*. Similar oscillations occurred in OCS.

- Note that the sequences *tl, dl did not undergo simplification, unlike in East or South Slavic (*mydło, plótł*; cf. Ru. мыло, плёл)
- Note the retention of voiced affricates such as: *nodze* (Cz. *noze*), *miedza* (Cz. *meze*, Ru. межа)

- In Polish the 3rd person verb ending *-tъ/tь has been lost altogether, just like the -zъ ending in the personal pronoun *azъ → já (only one instance of *jaz* in OPl.); well, unless

their dialectal absence goes back to the loss of PIE coda consonants in Proto-Slavic; the same development has occurred in other West Slavic languages, western South Slavic languages, as well as partially in Belarusian, Ukrainian, Macedonian and Bulgarian; athematic verbs *wie* "knows", *je* "eats", *da* "will give" have actually lost a -stъ (stь?) ending in the 3sg; the athematic verb *jest* "is" is the sole exception in Polish.

Early changes

- tj, dj → c´, ʒ´
- consonants before front vowels become palatalized (except for /j/ and palato-alveolars)
- nj, lj, rj got merged with the palatalized n´, l´, r´ and hence developed identically
- pj, mj, vj, bj → pl´, ml´, vl´, bl´ / sporadically: e.g. modern *grobla, kropla, niemowlę, skomleć, dziupla, Lublin, pluć*
  elsewhere they were merged with the palatalized consonants p´, b´, m´, v´
- prothesis: /j/ before PS *a, ě, e, ę /v/ before *ǫ, (u) – earlier before *y, *ъ but this is generally reconstructed for CSl.
  *ablъko, *agoda → *jabłko, jagoda;* *ěsnъ-jь, *ěmь → *jasny, jem;* *elito, *elenь → *jelito, jeleń,* *ęzykъ, *ętriti → *język, jątrzyć,* *ǫxati, *ǫditi → *wąchać, wędzić,* *ujь → *wuj*
  in contemporary Polish there are few inherited words starting in a- (mostly conjunctions like *a, albo, ale, aczkolwiek, acz* and interjections) or e- (interjections), and in practice no words in y-, ę- or ą-. The process continued to be productive for quite some time (cf. rural dialectal forms like *Jancykryst* "Antichrist")
- the Polish or Lekhitic apophony: e, ę, ě → o, ǫ, a / _[-palatalized, +dental]

Irregularly before consonants other than dentals:

†*trzop, pożoga, wlokę, macocha, poziomka*

- elsewhere ě merges with e
- ь, ъ → e / in accordance with Havlík law; in odd syllables counting from the last one in the word or from one preceding a non-yer vowel (the **e** from *ъ did not generally cause palatalization of a preceding consonant, but also see the "fourth palatalization" of velars; nor did it undergo the apophony)
- however, certain phrases (mostly involving prepositions) are to be treated as single units: hence *nadъ mъnojǫ → nade mną
- ь, ъ → ∅ / elsewhere: in even syllables…

YERS IN THE SEQUENCES *ьr, ъr, ьl, ъl

They are also often reconstructed as syllabic sonants *ḷ, *ĺ, *ṛ, *ŕ. I prefer to reconstruct them as sequences – is there any natlang with a syllabic palatalized /r/?

ъr

◆ ъr → ar, ár (→ ar in the standard) – the most regular and common outcome

e.g. *targ, bark, bardzo* (← *bár·zo*), *gardło*

◆ more rarely:

◆ ъr → ur: e.g. *kurczyć się, purchawka, turkotać (terkotać)*

— with subsequent metathesis ur → ru: *mruczeć, mrugać*

— dialectally forms like *marczeć, myrczeć* are attested for *mruczeć*

◆ ъr → yr → er

merdać, sterczeć, rozterka, terpać/tyrpać

cf. the archaic *starczeć, stark* (unrelated to *starczyć* from *statczyć*)

◆ ъr → or

storczyk

[this one makes me wonder if it isn't some East Slavic loan]

ъl

◆ after a dental:

ъl → łu

słup (← *stłup), tłumaczyć*, arch. *słuńce* (with subsequent lowering u → o before a nasal, modern *słońce*)

◆ after a labial:

ъl → oł, ół (then modified/simplified)

OPl. *mołwa → mowa*

OPl. *mółwić → mówić*

arch. *połk → pułk* (also: *-pełk-* as an element of proper names)

Boryś considers the *połk/pułk* form to be a borrowing from ESl.

◆ after a velar:

ъl → eł

kiełbasa, zgiełk, chełpić się

ьl

◆ after a dental:

ьl → łu

długi, tłusty, tłuc

◆ after a labial:

— before a non-palatalized (hard) dental – apophony:

ьl → eł

pełny (and, secondarily, *pełnić), wełna, pełzać*, obsolescent *pełł* and *mełł* (past tense of *pleć/pielić* and *mleć/mielić*)

— elsewhere:

ьl → il

pilśń, wilga, wilgoć, wilk, milczeć

◆ after a palato-alveolar:

ьl → ół/oł

żołna, żółw, czółno, czołgać się

ьr

◆ before a hard dental – apophony:

ьr → ar, ár → ar

e.g. *tarł, darł, martwy, wartki, czart, barłóg, naparstek*

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only rarely the previous consonant remains palatalized: *ziarno, ćwiartka, dziarski*

◆ elsewhere:

ьr → irz, írz → er/erz, ér/érz → er/erz

wiercić, śmierć, pierścień, czerpać, czerw, świerszcz, mier·zić, ćwierć

— the historical palatalization of **r** is preserved particularly before a labial or a velar:

wierzch, wierzba, pierzchnąć, zmierzch, pierzga, wierzgać, świerzb, mierzwa, dzierzba?

but: *cierpieć* (OPl. also *cierzpieć*), *pierwszy, sierp, dziergać*

- however: in the vicinity of *j the development of yers did not comply with the aforementioned law
- ę, ǫ merge into a single nasal vowel, here marked as ‹ã› (in certain OPl. texts a character similar to ‹o›)

Development of vowel length

The vowels **a, e, i, o, u, y, ã** split each into a short and long variant; the long ones developed in several environments, most notably:

- before a voiced consonant or cluster containing one followed by a lost weak yer (compensatory lengthening). Effects can nowadays be seen for example in:
  - the noun declension: *płód*, G. *płodu; błąd*, G. *błędu*
    but: *kot*, G. *kota; pręt*, G. *pręta*
  - the past tense of verbs: masc. *wiózł*, fem. *wiozła;* masc. *ujął*, fem. *ujęła*
- the coalescence of two syllables (**aje → é** in adjectives, **á** in verbs; **aja → á**; **oje → é**; **yje → é**; **iji → í**; **oja → á**)
- the so-called neo-acute accent (which arose due to the retraction of stress from weak yers and also due to some reshuffling to keep accent paradigms apart); bisyllabic final-stressed words kept an original (Proto-Slavic) long vowel; certain words kept length in a posttonic or pretonic syllable (i.e. one following or preceding the accented one, respectively).
- some cases are considered irregular or analogical; in some words an **o** apparently got lengthened to **ó** next to a liquid consonant, **r** or **l** (*skóra, pióro, góra*) but this wasn't consistent.

Coalescence of vowel sequences with an intervening -j-, development of /j/ in various other contexts

eje → é (soft-stemmed adjectives and participles in the nominative)

ěje → é *(umie, rozumiesz, rozumiecie)*

aje → é (G. sg masc. of adjectives: *dobrego, cnego*; analogically tego rather than *togo)

ьje → é (verbal nouns in the nominative: *picie, pisanie*)

uje → é (Dsg masc. of adjectives: *nowemu*)

oje → é (Nsg neut. of adjectives: *długie, małe*)

yjě → é (pl fem. and masc. inanim N: *nowe*, later extended to neuters)

ojǫ → ą́ (*nogą*)
ьjǫ → ą́ (*nocą*)
ǫjǫ → ą́ (*starą*)

ъjь → y, *stary, dobry, zysk, tydzień*
sometimes ej, je: *sejm* (OPl. N. *sjem*, G. *sejmu*), *zejść* (OPl. *zyść*)
ьjь → i, e.g. *tani, letni, wsi, nocy*
jь- → i / sentence-initially, later doublets: *skra* and *iskra*, *grać* and *igrać* (but only *imię, ił, mieć*)
ьj → ij, e.g. *bije*
ъj → yj, e.g. *myje*
ji → i / #_, e.g. *ich*

aja → á (feminine adjectives in the N.; Npl & Apl of neuter adjectives before it merged with feminines and masculine inanimates)
aje → á (2,3sg & 1,2pl of 1st conjugation verbs; *zna, śpiewam, czytacie*)
oja → á (*bać się, stać; pas*)
eja (← ěja) → á (*wiać, śmiał się, chwiać się, grzać, piać*)
ьja → á (Gsg of verbal nouns in -*nié*, like *narodzenie*; other nouns like *rola, bracia, sędzia*)

Note that e.g. **aje** yielded **é** in earlier and **á** in later contractions (hence the verb/adjective discrepancy).

iji → i, e.g. *silni, starzy, tanim, tanich*
yji → y, various adjectival forms: *starym, starych*

Contractions involving /v/ (they might be later, though):

obs. *człek* (← *człowiek*), dial. *pedzieć* (← *powiedzieć*)

- **v** then becomes more of an obstruent. Modern Polish /v/ is realized as a strongly fricated consonant and it is often devoiced in specific contexts.
- final devoicing: all final obstruents become devoiced unless followed with a word starting in a voiced obstruent or a voiced consonant (it still depends on where you are from)

Accent shifts

It is generally believed the original mobile accent system was replaced by an initial stress (still preserved in peripheral areas like the Podhale dialect or southern Kashubian dialects – the northern ones still have mobile stress), which in turn was replaced by a penultimate stress.

Sporadic deletion of unstressed vowels

tako → tak
jako → jak ("like" and other meanings), *jako* ("as")
teże → też

tamo → tam

juże → już

dosyci → dosyć → dość

więce → więc

etc.

i → Ø / _#; in the infinitive and imperative desinences; interestingly in imperatives the verbs which originally had stress on a non-final syllable were affected first, while other verbs were affected only after all final stress was lost; some verbs have never been affected due to a potential "difficult" cluster that would result, instead they got an analogical final -j extension; e.g. *płynąć → płyń* (← *płyni*), *zamknąć → zamknij* (← *zamkni*; not **zamkń*).

zasię → zaś

=ci → =ć / V_ (also the emphatic enclitics *-że* and *-ż* tended to have a similar distribution – the more reduced one would often pattern with vowel-final host words; hence *także, weźże* but *też, również, przecież, cóż*)

wieliki → wielki

Close vowel oscillations after l′ and j

libaszka → lubaszka "a kind of plum"

licemiernik → lucemiernik obs. "hypocrite"

lilija → dial. *leluja* "lily"

linąć → lunąć "pour down (about rain)"

lutować się → litować się "take pity"

Junowłodzisław →→ Inowrocław [placename]

Development of certain dentals (affrication, depalatalization, velarization)

t′, d′, s′, z′, n′ → [tɕ], [dʑ], [ɕ], [ʑ], [n̠] (usually represented as [ɲ] but the Polish "ń" is in fact alveopalatal, too)

r′ → ř [r̝]

l → [ł]

l′ → [l] (except, perhaps, before /i/)

Loss of vowel length

í, ú, ý → i, u, y

ã → ę

å̃ → ã → ǫ (still spelt ‹ą›)

á → å *[ɒ]

ó → ȯ *[o] / we can surmise that the short vowels **o, e** stabilized as open-mid at this stage

é → ė *[e]

Exceptionally, long vowels were shortened in certain frequently used words, e.g. *chodź* rather than **chódź* (cf. *zgódź się, zrób*)

In cases where full merger did not occur, the acute accents remained in use in the orthography (e.g. ė was ‹é›).

Denasalization

rękojeść, uczestnik, sławetny, żaden (according to one hypothesis)

Nasalization

częstować, szczęka, drążyć, nadwyrężyć, między, tęsknić, sędziwy

There were certain environments which favoured nasality changes: in the vicinity of nasal consonants (*tani, między*, also cf. archaic/regional *mięszać, mięszkać*) and before sibilants

the word *tani* is special: it is believed to have first undergone an irregular nasalization (*tuni → tǫni*), and later a denasalization (*tǫni → tãni → tani*)

Other interesting cases are proper names like *Sandomierz, Santok, Jan Kanty* which exhibit an archaic orthography that rendered OPl. /ã/ as ‹an› and a spelling pronunciation modelled after it.

Lowering before rhotics

i, y → e / _[+rhotic]
e.g. *cztery, umierać, zabierać, szeroki, świerszcz, merdać, Kazimierz*
It can be inferred that the **e** from an original **i** is still preceded by palatalization (unless the consonant was subsequently depalatalized, see below), unlike the **e** from an original **y.**
Several exceptions exist, e.g.: *wir, żwir, Sławomir*, reg. *tyrpać*

The "fourth palatalization"

(XV[-XVI] century)

ke, ge → k´e, g´e ‹kie›, ‹gie› / e from the back yer and borrowings
ky, gy → k´i, g´i ‹ki›, ‹gi›
Not delving into which one happened first, the lowering + 4th palatalization of course yields

palatalization + **e** (Common Sl. *sekyra → Mordern Polish *siekiera*).

Depalatalization of palatoalveolars (sz, ż, cz, dż) and dental affricates

– until the XVI century

[ʃ], [ʒ] , [t͡ʃ], [d͡ʒ] → [s̱], [ẕ], [t͡s̱], [d͡ẕ] (my own notation, instead of the usual ‹ʃ›, ‹ʒ› , ‹t͡ʃ›, ‹d͡ʒ›, which would show no difference, or ‹ʂ›, ‹ʐ› etc., which might suggest e.g. subapicals, which do not exist in Polish)
c′, ʒ′ → c, ʒ

There was a subsequent retraction of **i** to **y** after depalatalized sybilants, cf. *szyja* (CSl. *šьja), *uszy* (*uši), *żyć* (*žiti), *czysty* (*čistъ-jь), *dżdżysty* (*dъžd- + -istъ-jь), *świecy* (*světji), *wiedzy* (*vědji)

Loss of the fricative trill phoneme ř ‹rz›

ř → [s̱] / adjacent to a voiceless consonant or word-finally
ř → [ẕ] / elsewhere

‹rz› is kept in spelling, though.

"False apophony"

(affecting **e** from the yers and other aberrant developments)

- before ł: *kocioł, kozioł, osioł,* dial. *orzoł* (stand. *orzeł*)
- other: *wioska, dzionek; piosenka/piosnka* has an irregular **o** instead of **a** (†piasnka, †piąsnka), cf. *pieśń*, and so do *wionąć, zionąć, sionka*

There were also analogical developments in the opposite direction, leading to the emergence of **e** in place of Common Sl. *a: *wcześnie* (cf. *czas*), *leżeć, leżeli* (cf. *leżał*)

Vocalization of dark L

[ł] → [w] (so-called "wałczenie", spreading from peasants' speech up the social ladder and eventually becoming the norm in all registers after the mid XX century)

XVIII-XIX century and beyond:

Loss of *samogłoski pochylone*

(literally "leaning vowels")

å → a (but cf. colloquial – and dialectal – *po ptokach ← po ptákach*)
ȯ → u
but: ȯ → o / _[+nasal] (e.g. *dom*, rather than **dóm; dwóm*, the dative of "2" is an exception)
ė → e (but cf. the colloquial – and dialectal – *dziwka, bida, tyż ← dziéwka, biéda, téż*)

The close-mid back vowel of Middle Polish, /o/, developed into the modern Polish open-mid /ɔ/, rather than into /u/, before nasal vowels. Additionally, sometimes a genuine Old/Middle Polish /u/ could be lowered to the modern /ɔ/ before nasals: *pończocha, słońce, tytoń* belong here.

These days, only ‹o›/‹ó› and ‹ę›/‹ą› remain as notable traces of the OPl. length in standard Polish.

Depalatalization of final labials

p´, m´, f´ → p, m, f / _#; completed quite late in this position (the palatal element reappears when a vowel is added: e.g. *gołąb*, G. *gołębia, paw*, G. *pawia, Radom*, G. *Radomia*)

Elision

i, y → Ø / unstressed, before jV; mostly, in the borrowed Latin endings *-ija, -yja, -ijusz, -yjusz*
preserved before a consonant: *partyjny, lilijka* (cf. *partia, lilia* /partja, lilja/)

At this very moment, some speakers have a contrast between certain palatalized consonants and Cj sequences and others don't have it (e.g. *Arabia* vs *zarabia, monogamia* vs *ziemia*).
Some speakers have a contrast between /ɲj/ and /ɲ/, others don't have it.

Decay of nasal vowels

ę → [ɛ] / _#, _{l, ł}
ǫ → [ɔ] / _{l, ł}, _# (regionally/dialectally)
ę → [ɛm] / _[+labial, +stop]
ǫ → [ɔm] / _[+labial, +stop], _# (regionally)
ę → [ɛn] / _[+dental, +stop]

ǫ → [ɔn] / _[+dental, +stop]

ę → [ɛn̪] / before the affricates cz, dż

ǫ → [ɔn̪] / before the affricates cz, dż

ę → [ɛŋ] / _[+velar, +stop]

ǫ → [ɔŋ] / _[+velar, +stop]

ę → [ɛw̃] / _[+velar, +stop], _[+fricative, -palatal]

ǫ → [ɔw̃] / _[+velar, +stop], _[+fricative, -palatal], _# (the most standard pronunciation in this position)

ę → [ɛj̃] / _[+fricative, +palatal]

ǫ → [ɔj̃] / _[+fricative, +palatal]

Some changes concerning nasal consonants have occurred as well:

ń →[j̃] / _[+fricative] (*państwo* [paj̃stfɔ])

n → [ŋ] / before a velar stop, regionally

The following sections are structured according to respective sound change types without much chronology, as the sound changes tend to sporadic, irregular or inconsistent or to be trends spreading over considerable time spans.

B. MINOR CONSONANT DEVELOPMENTS

Depalatalization

- early, the palatalization more or less regularly disappeared in the reflexes of CSl. ьr, ьl before a hard dental (in apophonic position), e.g. *czwartek* (cf. Kashubian *czwiôrtk*), *martwy, naparstek, sarna, tarł, mełł;* the words *dziarski* and *ziarno* are exceptions to this rule.

- later: *wesoły, wesele, serce, serdeczny, czerwony, zerkać | teść, jeden, jedyny, obecny, śmiertelny, nieskazitelny, wierzytelny* – often Czech influence (till cca. XVI cent., later its prestige dropped), so these words are "loan portmanteaux" with one source Czech, one Polish; others are either due to analogy or we just don't know.

Assimilations and dissimilations

tVt → tVr: *statczyć → starczyć*

(b, p)(l, r, rz)Vn → ...Vm

brana (itself influenced by/borrowed from Czech, older *brona*) → *brama, plana → plama, obrzyn →*

obrzym (→ modern *olbrzym* with an intrusive -l-)

palatal dissimilation: *widzienie → widzenie, gniecieni → gnieceni* (in participial and deverbal forms originally with alveopalatal consonants in the onsets of two consecutive syllables).

Certain types of "oscillatory irregularities"

Polish has had various bidirectional ("dynamic equilibrium type") sound changes; the words which are mentioned below show altered reflexes of an original or expected-had-the-change-not-occurred sound or they are loanwords which had widespread alternative forms (here one cannot always talk about an original or expected form). For example, a Czech š or a German sch could split into Polish rival forms with ś and sz. I think the existence of alternative forms was further fostered by the existence of dialects with different sibilant inventories (e.g. the dialects with *mazurzenie* lacked the postalveolar series altogether, so they would mimic a foreign /ʃ/ with the alveopalatal series while other dialects might prefer postalveolars in the same loanwords).

Oscillations between dentals and postalveolars

dzban, zgliszcza, żubr, cud, różny, próżny, lubieżny, probably *szabla, żmija, cwany, cuchnąć, sadź* (but commonly *szadź*), *szkaradny, szerszeń, ceber, sędziwy, zarzewie, żbik, kucać*

Oscillations between postalveolars and alveopalatals

sierść, szron, ćwierć/ćwiartka, szpik~śpik (a borrowing with two variant forms from beginning, these days with different meanings), obs. *śpital, śpica, ślachcic, szkło*

Voicing oscillations

drzazga/trzaska, babrać/paprać, bluzgać/pluskać, pryskać/bryzgać

More prothesis and h/ch merger

In the Polish words *hen, het* ‹h› is a prothetic consonant. This was more widespread in Old Polish varieties (e.g. in OPl. *Hewa* (= MPl. *Ewa*)), also before other vowels. One source suggests that this contrasted with an initial ch- in Old Polish as its voiced counterpart. Ruthenian and Czech loanwords strengthened its phonemic status somewhat but nowadays the distinction remains in speech only dialectally/regionally and the vast majority of Polish speakers within the borders of

Poland lacks it. ‹h› and ‹ch› both stand for /x/ for those speakers, often bemoaned as another orthographical nuisance.

Non-standard dialects of Polish frequently and stereotypically use [w] as a prothetic consonant before back vowels (e.g. *uoko* [wɔkɔ] = standard *oko*).

C. MODIFICATION OF CONSONANT CLUSTERS

Metathesis

dwrzi → drzwi
blcha → pchła
zwnieć → †wznieć
wysmknąć się → wymsknąć się
puchlny → pulchny

Unpacking

ćc → jc (oćca → ojca, zdradźca → zdrajca)
źř → jř (doźrzały → dojrzały)
ść → js / _c, _s (mieśćce → miejsce, mieśćski → miejski, ujeźdźski → ujejski)

Fortition

zž → žǯ (Żdžary; maybe in words like *móżdżek* unless the affricate had been dialectally preserved in CSl. after *ž)

źv → ʒ́v′, zv → ʒv / e.g. dźwięk, dzwon

r·z → rʒ / bardzo, rdzeń

strżeń → zdr·zeń → drdzeń → rdzeń / wow!

Assimilatory processes

Voicing assimilation

Normally, the last obstruent in a cluster dictates the voiced/voiceless state of others:

zagadka [-tk-], *liczba* [-d͡z̪b-]

/v/ (‹w›), /r̝/ (‹rz›) remained sonorants for some time and when they finally became obstruents, their voicing was adjusted to the one of a neighboring obstruent (otherwise, they remained voiced except word-finally with usual assimilatory restrictions); however, there are still areas where e.g. tw is, supposedly, [tv].

v → f / [-voiced]_, _[-voiced], _# (at least so in Lesser Poland and Mazowsze)
[r̝] → [r̝̊] / [-voiced]_, _[-voiced], _#

(later [r̝]/[r̝̊] merged with [z̪]/[s̪] ‹ż›/‹sz›, respectively)

Certain clusters emerged where /v/ and an obstruent were separated by an intervening liquid consonant, in such words as *trwać, krwi* (GDLsg of *krew*), *drwal, brwi* (GDLsg, NGApl of *brew*), *plwocina*. If the obstruent is voiceless, the whole clusters may be voiceless for many speakers (i.e. *trwać* tends to be pronounced [tr̝̊fatɕ]).

Other assimilations and simplifications

xv → x / _o; e.g. *chory, choinka, chrust* (*xvorъjь, *xvoja, *xvorstъ); also cf. *gwóźdź* and *goździk* from *gvozdь
xv → f; nowadays only preserved in proper names
there's also evidence for a reverse process in case of one word (maybe due to hypercorrection):
zuchwały from *zufały*
pv → f / examples: *ufać, zadufany* (from *dufać*, from *doufać*)
plv → pf / in the word *obfity*
pp- → p- / *piernik, †pierz* "pepper"
dcórka → *córka*(so Polish *cór-* corresponds to English *-ghter* here)
čs → c / e.g. *świadectwo, co, cny*
žs → s / e.g. *boski, męski*
zs, ss → s / _C, e.g. *ruski, niebieski, bełski* (of *Bełz*)
šs → s / _C, e.g. *włoski, czeski*
xr → r / in the word *robak*
śř, źř → śr, źr / *środa, średni, źrenica*
śř → šr / in the word *szron* (arch. *śron*)
žř → žr / in the word *żreć* (OPl. also *żrzeć*)
žř → źr / *źródło, źrebię*
stł → sł / *słup*
čř → tř / e.g. *trzon, trzewia, trzewik, trzoda, trzos*

třść → třć / trzcina (OPl. *trzścina*)

gd → d; *kiedy, wtedy, bodaj*

rv → r / *dopiero*

bv → b / *obóz, obłok*

łdń → łń / *żołnierz*

rdc → rc / *sierce* (→ *serce* probably due to Czech influence)

dn → n / in *jeno* (also cf. *pono(ć)* from *podobno*)

sr → str / in *stręczyć* (but cf. *srać*)

stb → zb (*izba*, dim. *izdebka*)

ščb → žb / *ciżba*

Simplifications of PS clusters of the type Cn in verbs in -nąć:

bn → n *ginąć*

pn → n *tonąć*

vstv → stv (*dziadostwo, królestwo, ojcostwo*)

cztworo → *czworo*

słza → *łza*

Strkwa → *Skrwa* (a river)

zd´n → z´n (*późny*)

st´n → sn, śn (*miłosny, szesnaście, żałosny, miłośnik*)

zd´n → zn, źn (*Gniezno, późny*)

rd´n → rn (*miłosierny*)

st´l → śl (*jeśli*)

stl → sł (*słup*; the verb *słać* - 3sg *ściele*)

sl´s → s (*przemyski* – of *Przemyśl*)

pv → f (*ufać*)

čp → šp (*szperać*)

st´kl → śćkł → škł, skł → škł (*szkło*)

Coalescence of a stop and fricative into an affricate:

ds → c ‹dz› / *ludzki, grodzki*

ts → c ‹c› / *bogactwo*

džʒu → *dżdżu*

tsknić → *cknić*

Sibilant + a labial:

— result: dental

spiż, zbić, zwierzę, spieprzać (generally most verbs with the s/z- prefix lack the palatalization here, the situation is different before coronals)

— result: alveopalatal

śpię, śmiać się, świat, dźwięk, śpiewać

ł (/w/) → ∅ / C_#
This is quite normal in causal speech but an orthographical, conservative pronunciation is often retained in more formal registers.
ł (/w/) → ∅ / C_C
Not consistently, so *jabłko* [japkɔ] is common and considered prescriptively correct but in certain other words the /w/ is more often preserved in speech and dropping it may sound substandard.

Assimilation of palatalization:

— oscillations between dentals and alveopalatals before a consonant

wczesny, krasny, cielesny, radosny (from -st´ny)*, miłosny* (from -st´ny)
leśny, przaśny, donośny
nienawistnik, miłośnik (from -st´nik)
 Gniezno, Pilzno, arch. *rózny, prózny, lubiezny*
późny (from -zd´ny)

Depalatalization in clusters

labials before another consonant
chłopca, kłamca, mgła

r´ before c, l, ł, n, n´, s
starca, mierny, orła, orli, cesarstwo, piekarnia, piernik
exceptions: *wietrzny, powietrzny, Jaworzno*

t´, d´ before l, n, ń, r, rz
świetle, tło, tnę, zadni, drze, trę
ludzki, bractwo
ogrójca, rajca

s´, z´

†*rózny* (today as the hypercorrect *różny*), *pismo, osła, kozła*

Dissimilatory processes

kn → ks / before a PS *ę; later the **s** palatalized regularly to **s´** → **ś** *(ksiądz, księżyc, księga)*
knVn → ksVn / *ksieni*

POA dissimilation:

stydnąć → *stygnąć*

Dissimilation of alveopalatals (mentioned earlier): *widzenie, gnieceni*

MOA dissimilation:

chrzbiet → *krzbiet* → *grzbiet* (voicing assimilation)
maybe: *chrzciuk* → *krzciuk* → *kciuk*
substandard, dialectal: *chrzcić* → *krzcić*

Miscellaneous:

čř → tř *(trzon, trzewia)*
ść → tść (old declension of *teść*: N. *cieść*, G./A. *ćscia* → *tścia*; then N. was remade into *teść*; then oblique forms remade into *teścia, teściem* etc.; cf. *deszcz, dżdżu* → *deszcz, deszczu*; *dska, desk* → *deska*, *desk* → *deska, desek* and other multilayered analogical changes)

Phone insertion and epenthesis

Insertion of epenthetic vowels ("false yers"):

ogień, błazen, desek (Gpl of *deska*), *przerębel, siedem, osiem, iskier* (Gpl of *iskra*), *gier* (Gpl of *gra*), *mydełko, braterski, piosenka, kłamstewko, węgiel, węzeł*

Insertion of vowels other than **e**:

narów
ku

These two insertions may have been influenced by morphology but nevertheless they served to remove unusual consonant clusters.

Insertion of consonants:

insertion of **g**: *lnąć → lgnąć*

insertion of **d**: *zdjąć, zdradzać, zdrój*